

REMARKS

The disclosure was objected to because of certain recitations in Claims 13 and 15 involving the word “allow”. Claims 13 and 15 are amended to overcome the rejection.

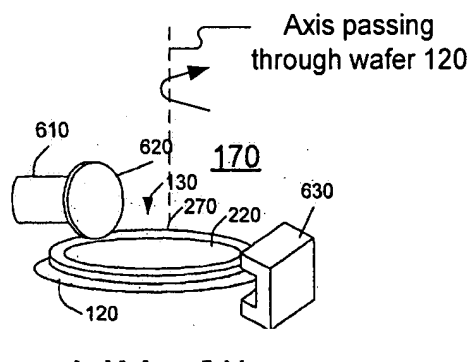
Claims 13, 19, 20, 25-31, 37, 43 and 44 were rejected under 35 U.S.C. 112, second paragraph, because of lack of antecedent basis in Claims 13 and 19. Claims 13 and 19 are amended to overcome the rejection.

In addition, Claim 43 is amended to incorporate the language of Claim 19, and this language is amended to overcome the rejection.

Claims 13, 15, 16, 19, 20, 27-38, 40, 45 and 48 were rejected under 35 U.S.C. 102 over Correnti et al. (U.S. patent no. 4,566,726) and over Casarotti et al. (U.S. patent no. 6,631,935).

Claim 13 recites a rotational member for rotating with an article held in the end effector, the article being rotatable “around an axis passing through the article”.

Claim 13 is supported by Applicants’ Fig. 10. Rotational member 270 rotates with wafer 120 due to the action of motor 610 around a vertical axis passing through wafer 120 (specification, page 5, lines 29-32). See the following diagram:



Claim 13 is not limited to the embodiments discussed herein.

Correnti’s robotic manipulator 16 (Fig. 1) includes a wafer pickup device 26 (column 3, line 25) for picking up wafers 11. Correnti does not teach or suggest that his wafer 11 can

rotate around an axis passing through the wafer as recited in Claim 13. Correnti does not provide a motivation for such a motion.

Casarotti also does not teach or suggest that his end effector 10 (Fig. 3A) can allow the wafer 22 to rotate around an axis passing through the wafer as recited in Claim 13.

Claim 15 is believed to be allowable for similar reasons.

Claim 16 depends from Claim 15.

Claim 19 recites an end effector for “being attached to an arm of a robot ... , the end effector comprising a mechanism for holding the article as the article is rotated around an axis passing through the end effector”.

Claim 19 is supported by Fig. 10 showing end effector 130 holding a wafer 120 as the wafer is rotated by motor 610 around a vertical axis passing through end effector body 220 (specification, page 5, lines 29-32). End effector 130 is attached to a robot arm 134 (Fig. 1 and specification, page 2, lines 17-24).

Claim 19 is not limited to the embodiments discussed herein.

Correnti and Casarotti do not teach the invention of Claim 19.

Claim 20 depends from Claim 19.

Claims 27-31 depend from Claim 13.

Claims 32-36 depend from Claim 17 which was not rejected and which, in any case, recites a rotation around an axis passing through the article.

Claim 37 depends from Claim 13.

Claim 38 depends from Claim 15.

Any questions regarding this case can be addressed to the undersigned at the telephone number below.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on February 4, 2004.

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